CLAIMS

1. A method of enhancing the production of a desired product in a bacterial host cell comprising, a) modifying a bacterial host cell by inactivating an endogenous *arc*A gene and b) culturing the modified bacterial host cell in suitable culture media comprising glucose under aerobic conditions to allow production of a desired product.

2. The method according to claim 1, wherein the bacterial host cell is from a strain of the Enterobacteriaceae family.

3. The method according to claim 2, wherein the bacterial host cell is an *E. coli* or *Pantoea* cell.

4. The method according to claim 1, wherein the bacterial host cell is a PTS^-/Glu^+ cell.

5. The method according to claim 1, wherein the desired product is selected from the group consisting of glycerol, PEP, pyruvate, chorismate, ethanol, succinate and dihydroxyacetone-P.

6. The method according to claim 5, wherein the desired product is chorismate.

7. The method according to claim 6, wherein the chorismate is further converted to an aromatic amino acid.

8. The method according to claim 1 further comprising inactivating the expression of an endogenous gene encoding a polypeptide having RpoS activity, Edd activity, Pta activity, AckA activity or MgsA activity.

9. The method according to claim 1 further comprising transforming the bacterial host cell with a DNA fragment comprising an exogenous promoter, wherein the DNA fragment including the exogenous promoter is integrated into the host cell chromosome and replaces the endogenous promoter which is operably linked to a PEP carboxylase coding sequence wherein PEP carboxylase is overexpressed.

10. The method according to claim 1 further comprising isolating the desired product from the culture media.

11. The modified bacterial host cell obtained according to the method of claim 1.

12. A method of enhancing biomass production in bacterial host cells comprising a) modifying a bacterial host cell by inactivating an endogenous *arc*A gene and b) culturing the modified bacterial cell under suitable culture conditions wherein said culture conditions include aerobic fermentation and glucose as a carbon source and wherein biomass production is enhanced in the modified bacterial cell compared to biomass production in a corresponding non-modified bacterial cell cultured under essentially the same conditions.

13. The method according to claim 12 further comprising inactivating an endogenous *rpo*S gene.

14. The method according to claim 12, wherein the endogenous *arc*A gene is inactivated by a deletion.

15. The method according to claim 12, further comprising inactivating an endogenous gene encoding a polypeptide having phosphogluconate dehydratase activity, phosphotransacetylase activity, acetyl kinase activity or methylglyoxyal synthase activity.

16. The method according to claim 15, wherein the endogenous gene encoding a polypeptide having phosphogluconate dehydratase activity is an *edd* gene.

17. The method according to claim 15, wherein the endogenous gene encoding a polypeptide having phosphotransacetylase activity is a *pta* gene.

18. The method according to claim 15, wherein the endogenous gene encoding a polypeptide having acetyl kinase activity is an *ack*A gene.

19. The method according to claim 15, wherein the endogenous gene encoding a polypeptide having methylglyoxyal synthase activity is a *mgs*A gene.

20. The method according to claim 12 further comprising isolating the modified bacterial cell.

21. The method according to claim 12, wherein the bacterial host cell is selected from the group consisting *Escherichia* cells, *Pantoea* cells, *Klebsiella* cells, *Gluconobacter* cells and *Erwinia* cells.

22. The method according to claim 21, wherein the bacterial host cell is an *E. coli* cell or a *Pantoea* cell.

23. The modified bacterial cells obtained according to the method of claim 12.

24. A genetically engineered bacterial strain of the Enterobacteriacea family comprising an inactivated endogenous *arc*A gene and an overexpressed polypeptide having PEP carboxylase activity.

25. The genetically engineered bacterial strain of claim 24, wherein said strain is selected from the genus consisting of *Escherichia*, *Pantoea*, *Klebsiella*, *Gluconobacter* and *Erwinia*,

26. The genetically engineered bacterial strain of claim 24, wherein said strain is a strain of *E. coli*.

27. The genetically engineered bacterial strain of claim 24, wherein the endogenous *arc*A gene is deleted.

28. The genetically engineered bacterial strain of claim 24 further comprising an inactivated endogenous *mgs*A.

29. The genetically engineered bacterial strain of claim 24 further comprising an inactivated endogenous *edd*.

30. The genetically engineered bacterial strain of claim 24, further comprising an inactivated endogenous *rpo*S.

31. The genetically engineered bacterial strain of claim 24, wherein the overexpressed polypeptide having PEP carboxylase is operably linked to an exogenous promoter.

32. The genetically engineered bacterial strain of claim 31, wherein the exogenous promoter is a GI promoter.

33. A genetically engineered bacterial strain comprising an inactivated endogenous *rpo*S gene.

34. The genetically engineered bacterial strain of claim 33, wherein the endogenous *rpo*S gene is deleted.

35. The genetically engineered bacterial strain of claim 33 further comprising an overexpressed polypeptide having PEP carboxylase activity.

36. The genetically engineered bacterial strain of claim 33, wherein said bacterial strain has a PTS^-/Glu^+ phenotype, which was derived from a bacterial strain originally capable of utilizing a PTS for carbohydrate transport.

37. The genetically engineered bacterial strain of claim 36, wherein said bacterial strain is *E. coli*.

38. A method of enhancing the production of an aromatic amino acid in an *E. coli* host cell comprising, a) modifying an *E. coli* host cell by inactivating an endogenous *arc*A gene and b) culturing the modified host cell in suitable culture media comprising glucose under aerobic conditions to allow production of an aromatic amino acid.

39. The method according to claim 38, wherein the bacterial host cell is a PTS^-/Glu^+ cell.

40. The method according to claim 38 further comprising isolating the aromatic amino acid from the culture media.

41. The modified *E. coli* host cell obtained according to the method of claim 38.

42. The method according to claim 38, wherein the endogenous *arc*A gene is inactivated by a deletion.